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ABSTRACT

The degree to which perception and behavior are incorporated in geography instruction and the attitudes of geographers towards perception and behavior in contemporary research are examined. In 1981, a survey was mailed to 332 undergraduate and graduate departments of geography in the United States. The 174 respondents provided data as follows, listing: (1) the frequencies at which teachers of various topics implement perception and behavior in their teaching; (2) the course and departments placing the most emphasis on perception and behavior; (3) the perceptual and behavior topics taught; (4) an evaluation response to questions to determine the status of perceptual and behavioral utilization in current geographical literature and instruction; (5) specific strengths and weaknesses considered inherent to perceptual and behavioral research; and (6) responses to semantic differential items on perception and behavior as a check against the write-in responses. Foremost among findings concerning courses best suited as vehicles for instruction using perception-behavior were human, urban, cultural, and economic geography; natural hazards was the most common topic taught, followed by economic decision making, resource conservation and management, and cognitive maps. (LH)

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A SURVEY OF THE STATUS OF PERCEPTION AND BEHAVIOR IN GEOGRAPHY

A presentation made at the Annual Meeting of the
Association of American Geographers
Denver, Colorado
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A SURVEY OF THE STATUS OF PERCEPTION AND BEHAVIOR IN GEOGRAPHY

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Incorporation of perceptual and behavioral considerations into geography remains a focus of controversy. Surveys were mailed to departments of geography in the United States which were identified as offering either an undergraduate major or a masters degree. The survey focused upon degree to which perception and behavior are included in geographic instruction and their work as a means of research. Data derived on education includes identification of primary courses affected and specific topics taught. Ideological findings emphasize alleged strengths and weaknesses of perception and behavior, as well as assessment of merit and utility.

A SURVEY OF THE STATUS OF PERCEPTION AND BEHAVIOR IN GEOGRAPHY

The incorporation of perceptual and behavioral considerations into geography has been and continues to be the focus of controversy.[1] Is this situation analogous to previous philosophical and methodological evaluation in geography, or is it a form of metamorphosis which is destined to be proved invalid as a refinement of the nature of human geography? Are perceptual and/or behavioral forms of geographic analysis being used successfully or with an acceptable and defendable degree of validity? Do such methods of analysis yield reliable information?

The purpose of this paper is to report the findings of a mail survey conducted in 1981 which focused upon the nature and status of perception and behavior in geography.[2] The basic goals of that survey were: (1) to obtain unavailable information on the degree to which perception and behavior are penetrating the profession through education of students of geography, and (2) to discern the feelings of contemporary professional geographers toward perception and behavior in geographic research.

A questionnaire was sent to each department in the U.S. listed in Schwendeman's Directory of College Geography of the United States[3] as having either an undergraduate major or an advanced degree program. Questionnaires were addressed to the departmental chairpersons who were requested to direct them to the most qualified department member for completion and return. Three hundred thirty-two departments were mailed questionnaires and one hundred seventy-four usable ones were returned for a response rate of 52.4 percent, making the survey significant at the .0515 level.

Although poorly defined within the profession, no definition or clarification of perception and behavior was offered on the questionnaire.

In addition, no attempt was made to distinguish between perception and behavior. These measures were taken deliberately in order to make the survey as unobtrusive as possible. There were two basic lines of questioning, the first geared toward geographic education, and the second toward contemporary research.

Use in the Classroom and Departmental Curriculum

The areas of topical specialization listed in the membership directory of the AAG were presented as a list of content areas in which perception and behavior could conceivably be taught.[4] The title "spatial behavior" was added by the researcher. Table 1 lists the frequencies, according to the survey respondents, at which teachers of those various topics are implementing perception and behavior in their teaching. Human geography courses head the list, followed in descending order by urban, cultural, and economic geography, all of which were mentioned by over one-third of the respondents. The list presented here serves a useful purpose in that it identifies sub-fields of our discipline where perception and behavior are reaching potential future geographers.

The respondents were also asked to list specific courses in their departments which actually emphasize perception and behavior (see Table 2). Heading the list are courses bearing the titles of our investigation (environmental perception, spatial behavior), followed by social geography and urban geography.

When asked to list what topics in perception and behavior were taught in their departments, although approximately one-half of the respondents failed to comment, those who did identified a diverse set of subjects (see Table 3). Natural hazards was the most common topic, followed by (economic) decision making, resource conservation and management, and cognitive (mental) maps. Table 3 lists additional, less frequently identified subjects

Table 1 5

Course Offerings Including Perception and Behavior*

rank	course	frequency (of 174 respondents)
1	human geography	103
2	urban geography	97
3	cultural geography	79
4	economic geography	67
5	environmental studies	47
6	political geography	41
6	regional geography	41
8	conservation	40
8	historical geography	40
8	physical geography	40
8	urban planning	40
12	social geography	39
13	population geography	37
14	environmental perception	34
15	land use	29
15	recreational geography	29
17	economic development	28
18	spatial behavior	27
19	regional planning	26
20	location theory	24
21	field methods	23
22	resource geography	21
23	marketing geography	17
23	transportation and communication	17
25	quantitative methods	16
26	miscellaneous seminars	10**
26	natural hazards	10**
28	agricultural geography	9
28	applied geography	9
28	manufacturing geography	9
28	medical geography	9
32	cartography	7**
32	rural geography	7

*titles were taken from the list of topical specialities in the membership directory of the Association of American Geographers (1978)

** write-ins (not on survey)

Table 2

Courses Listed as Emphasizing Perception and/or Behavior

Course	as the focus of course	as a major theme of course
environmental perception	34	--
spatial behavior	27	--
social geography	21	16
urban geography	5	17
miscellaneous seminars*	4	4
natural hazards*	2	10
historical geography	0	9
cultural geography	0	7
conservation	0	6
political geography	0	6
economic geography	0	3
environmental studies	0	3
regional geography	0	3
population	0	3
	93	87

*response written in (not on list supplied to respondents)

Table 3

Perceptual and Behavior Topics Listed as Taught
(if listed 3 or more times)

topic	times mentioned
natural hazards	78
(economic) decision making	48
resource conservation/management	23
cognitive (mental) maps	22
migration/residential mobility	16
perception theory	15
spatial behavior	14
consumer behavior	13
land use	11
residential preference/satisfaction	11
territoriality/defensible space	9
urban planning	9
sense of place	8
historical images	6
man-made/technological hazards	6
political behavior	6
settlement	6
urban images	6
recreation	5
environmental planning	5
regional studies	5
effective cartography	4
architecture	3

which span the wide range of topical geography.

The questionnaire asked for interpretation of a number of evaluative items (see Tables 4a through 4e). The respondents collectively indicated that their departments were engaged in a "moderately low" but increasing extent of perceptual and behavioral teaching. Those answering the questionnaire generally concurred that the extent of perceptual and behavioral utilization in current geographical literature is low and increasing.

The group collectively professed a "moderate" degree of self-competency in perception and behavior. Less than fifteen percent of the chairperson-identified "experts" claimed high proficiency and only one percent claimed to totally lack competence. The group indicated that between one-quarter and one-half of collegiate-level geography teachers are competent in this area.

Qualitative Assessment of Perception and Behavior in Geography

A second line of questioning dealt with the nature of perception and behavior in geographical research. The respondents first were asked to identify by writing-in any specific "strengths" and/or "weaknesses" which they consider inherent to perceptual and behavioral research (see Table 5).

The leading "strengths" cited are: to clarify-explain man in geographical context (mentioned 62 times); as a "real-world" adjustment to "scientific" economic models (30 times); and as an aid in applied areas of planning, policy and decision making (19 times). Each of these essentially refers to perception and behavior as refinements of human-related geography and of the social sciences. Other "strengths" mentioned include: as an aid in formulation of research methodology, as a teaching aid, for development of observation capabilities, for intellectual stimulation, and that perception helps to explain behavior. The latter, mentioned eight times, reflects an assumption which is implicit in much of the existing research.

Table 4

Evaluation of Status of Perception and Behavior

A -- Response to question: "To what extent does your departmental curriculum include perception and behavior?"

	Assigned Values	Percent of Responding Departments	
high	(5)	5.2	
moderately high	(4)	30.5	
moderately low	(3)	35.1	
low	(2)	23.6	
not at all	(1)	5.7	n = 174

$\bar{X}$ response 3.24

B -- Response to question: "What is the trend of the use of perception and behavior in your departmental courses and curriculum?"

	Assigned Values	Percent of Responding Departments	
much more involved than in past 5 years	(5)	11.5	
more involved	(4)	38.5	
no significant difference	(3)	36.2	
less involved	(2)	10.3	
not involved	(1)	3.4	n = 174

$\bar{X}$ response 3.44

C -- Response to question: "To what extent are perception and behavior utilized in the current geographical literature?"

	Assigned Values	Percent of Responding Departments	
high and increasing in frequency	(5)	12.3	
high but decreasing in frequency	(4)	11.1	
moderate with no major change	(3)	34.6	
low but increasing in frequency	(2)	32.1	
low and likely to remain so	(1)	9.9	n = 162

$\bar{X}$ response 2.84

D -- Response to question: "What degree of competency in the use of perception and behavior do you profess?"

	Assigned Values	Percent of Responding Departments	
high	(5)	13.9	
moderately high	(4)	29.1	
moderately low	(3)	40.0	
low	(2)	15.8	
none	(1)	1.2	n = 165
$\bar{X}$ response 3.39			

E -- Response to question: "What proportion of college-level teachers of geography do you think are competent in this area?"

	Assigned Values	Percent of Responding Departments	
over 90%	(6)	0.0	
75-90%	(5)	2.2	
50-74%	(4)	6.6	
25-49%	(3)	35.3	
10-24%	(2)	37.5	
less than 10%	(1)	18.4	n = 136
$\bar{X}$ response 2.37			

Table 5

"Strengths" and "Weaknesses" of Perception and Behavior as Identified by Respondents

STRENGTHS	
clarify/explain man in geographical context	62
"real world" adjustment to "scientific" economic models	30
aids in applied areas of planning/policy/decision making	19
perception helps to explain behavior	8
intellectual stimulation	5
aids in formulation of research methodology	4
teaching aid	4
makes student more observant	3
NONE	2
value formulation	2
WEAKNESSES	
nature of the method	
obtrusive/biased means of data acquisition	13
too subjective	11
borrowed from other disciplines -- thus not well suited	3
emphasis often solely spatial (not comprehensive)	3
non-standardization	3
questionnaire format disallows collection of required data	3
inappropriately tested (e.g., curvilinear versus linear)	2
often too descriptive (not quantitative)	2
interpretation of results	
interpretation is difficult/impossible	11
faculty assumption that perceptions of individuals can infer aggregate group perceptions	7
quantification not ultimately best (e.g., can use arts, customs, literature)	4
cross-cultural variations	3
only lends partial explanation	2
often over-simplified	1
incongruity of perception and behavior	
perception cannot predict behavior	9
professional disagreement as to definition of perception and behavior	4
too much emphasis on quantifying behavior -- not on understanding perception/cognition	3

philosophy - epistemology

too intellectual (esp. for student use)	5
too many negative attitudes/skeptics	5
insufficient research to date	4
not yet widely understood within profession	3
an atheoretical system	3
lack of training in psychology and epistemology	2
too psychological -- not geographical	2
too many behavioralists at large	1

non-scholarly intrinsics

expense	1
time required	1
total idea	1
No	9
no more than the profession at large	3
all approaches do	2

Such a myriad of "weaknesses" were cited that they have been categorized for presentation in Table 5. Fewer total mentions of weaknesses (126 as opposed to 139 strengths) were given, but 27 specific items of weakness were cited, compared to only 10 items of strength. The most commonly occuring theme of "weakness" focused upon the nature of the method itself. Examples of criticism include derivation of obtrusive and/or biased data and use of methods borrowed from other disciplines which are poorly suited to geographic purposes.

Additional criticism stemmed from the means employed in interpretation of data generated by perceptual and behavioral analysis. Among problems cited are "difficulty or impossibility of interpretation" and "faulty assumption that perceptions of individuals can infer aggregate group perceptions."

Some respondents expressed concern over the philosophical or epistemological nature of perceptual and behavioral research, referring to it as too intellectual, atheoretical, too psychological (not geographical), and insufficient in current scope and magnitude. In the same vein, five persons expressed belief that a weakness is the existence of too many negative attitudes and skeptics.

A noteworthy category of "weaknesses" deals with an alleged incongruity of perception and behavior. Critics claimed that not only can perception not be used to predict behavior but that the profession cannot even agree as to the definition of the terms.

As a check against the write-in responses on "strengths" and "weaknesses" of perceptual and behavioral research, three brief questions were asked using the semantic differential technique (see Table 6). As a means of research, perception and behavior were said to be of relatively high importance, generally valid, and moderately valuable for data acquisition.

Table 6

Responses to Semantic Differential Items on Perception and Behavior

Perception and Behavior			
important	(5)	28.2	
	(4)	43.1	
	(3)	17.2	$\bar{X}$ = 3.86
	(2)	19.5	
not important	(1)	1.7	
valid approach	(5)	29.3	
	(4)	49.4	
	(3)	14.9	$\bar{X}$ = 4.00
	(2)	4.6	
invalid approcah	(1)	1.7	
valuable for data acquisition	(5)	20.1	
	(4)	32.8	
	(3)	32.2	$\bar{X}$ = 3.52
	(2)	8.6	
not valuable for data acquisition	(1)	6.3	

Conclusions

The survey discussed here represents both a summary of the geography classroom use of perception-behavior and a temporal cross-section of the attitudes of geographers toward perception and behavior. Although no major surprises were encountered with the former, the relative use of various courses and topics as vehicles for instruction was obtained. Foremost were human, urban, cultural and economic geography (as courses) and natural hazards and decision making (as topics).

Ideologically speaking, the view of man as an active and cognitive force in geographic analysis continues to evolve toward a more standard and comprehensible form. Nevertheless, recognition of perception and behavior as a valid and essential consideration continues as a debatable issue among professional geographers.

Notes

[1] A prominent and informative example can be found in Trudi E. Bunting and Leonard Guelke, "Behavioral and Perception Geography: A Critical Appraisal," Annals of the Association of American Geographers 69 (September 1979):448-62. Due to the controversial nature of this paper, comments were obtained from three geographers known for their work in perception and behavior. Those comments were presented in the same journal issue. See Gerald Rushton, "On Behavioral and Perception Geography;" Thomas F. Saarinen, "Commentary--Critique of Bunting-Guelke Paper;" and Roger M. Downs, "Critical Appraisal on Determined Philosophical Skepticism," all in Annals of the Association of American Geographers 69 (September 1979), pages 463-64, 464-68, and 468-71 respectively. A comment in reply from Bunting and Guelke appears on pages 471-74 of the same volume.

[2] The author would like to acknowledge the financial support of the Office of Institutional Research, Delta State University.

[3] Dale R. Monsebroten, ed., Schwendeman's Directory of College Geography of the United States (Richmond, Kentucky: Geographical Studies and Research Center, Eastern Kentucky University, 1980). As Canadian universities are not included in this source, they were subsequently omitted from the survey.

[4] Directory of the Association of American Geographers (Washington, D.C.: Association of American Geographers, 1978).